

DOCKET NO.: LPI-228US (LASK-0025)

PATENT

Application No.: 10/720,374

Office Action Dated: March 16, 2005

Amendments to the Drawings

The attached sheets of drawings includes changes to Figures 8B, 13A, 13B, and 15A. The replacement sheets, which include Figures 8B, 13A, 13B, and 15A, replace the original sheets for those figures.

Attachment: Replacement Sheet(s)

REMARKS

A telephone interview was held on June 6, 2005 between Applicants' representatives (Mr. Jones) and Examiner Edgar of the U.S. Patent and Trademark Office. During the interview, the Applicants explained and clarified various features of the independent claims to come a mutual understanding of the claimed invention in an attempt to advance prosecution. The Applicants presented arguments regarding why the cited references fail to disclose or teach all of the features of the present invention recited on the claims (as discussed in detail below). Specifically, the claim limitations relating to the space saving design and the inequality relationship between the rise height of the support member and the length of the housing were discussed. At the conclusion of the Interview, the Examiner invited the Applicants to file a Response describing in the Remarks the positions stated during the Interview and requesting reconsideration of the rejection of the claims in the Office Action.

Claims 1-53 were pending in the present application. Claims 1-19, 22-36, 38-49, 52, and 53 have been rejected. Claims 1, 20, 36, 37 and 38 have been amended. Claims 19 and 35 have been canceled, and the features of claims 19 and 35 have been incorporated into their associated independent claims. New claims 54-56 have been added. No new matter has been added. Upon entry of the current amendments, claims 1-18, 20-34, and 36-56 will be pending. Reconsideration of the Office Action of March 16, 2005 is respectfully requested in view of the above amendments and following remarks.

Priority:

Applicants hereby amends the claim of priority under 35 U.S.C. §120. Page 1 of the specification has been amended to amend the claim of priority under 35 U.S.C. §120.

Drawings:

The drawings have been objected because not all of the figures illustrating that which is old included a designation as "prior art" and because the drawings did not show every feature of the invention specified in the claims. Figures 8A, 13A, 13B, and 15A have been

amended to include the designation "prior art" by legend, as suggested by the examiner. Replacement Sheets for the affected drawings have been provided. No new matter has been added. Accordingly, withdrawal of the objection to the drawings is requested.

Claims Rejections under 35 U.S.C. § 103(a):

The Examiner rejected claims 1-13, 15, 19, 22-30, and 53 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tsumurai et al. (USP 5,266,004) in view of Chang (USP 6,183,204) and further in view of Applicants' admitted prior art; claims 14 and 16-18 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tsumurai et al. in view of Chang and further in view of Applicants' admitted prior art, as applied to claims 1-13, 15, 19, and 22-30 above, and further in view of a design choice; claims 31-36, 38, 41-49, and 52 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tsumurai et al. in view of Escobar (U.S. Patent Publication No. 2002/0034442) and in view of Applicants' admitted prior art; and claims 39 and 40 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tsumurai et al. in view of Escobar and further in view of Applicants' admitted prior art, as applied to claims 31 above, and further in view of a design choice.

Applicants respectfully traverse the rejections under 35 U.S.C. § 103(a) and submit that no single reference or proper combination of the references of record would yield Applicants' unique invention, as recited in the claims of the present invention.

For the Examiner to make a rejection based on obviousness, 35 U.S.C. § 103(a) and MPEP § 2141 require adherence to the following tenets of patent law: (A) the claimed invention must be considered as a whole; (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) reasonable expectation of success is the standard with which obviousness is determined.

Regarding independent claims 1 and 53, the Examiner asserts that Tsumurai et al. disclose a desk fan having various features, including a base for engaging a mounting surface, a housing having a longitudinal length extending upward from a bottom to a top and having a

maximum cross-sectional width taken along a horizontal plane through the housing, among other features. The Examiner admits that the Tsumurai et al. reference does not disclose or teach an adjustable support column for the fan, the rise height, or the dimensional relationships between the various components, including the relationship between the housing height and housing width, the relationship between the riser height and the housing length (see Office Action at p. 5).

The Examiner further asserts that Chang discloses a fan which can be used as either a desk fan (Fig. 6) or a floor fan (Fig. 4) with an adjustable supporting column for the purpose of adjusting the fan so that the desired air flow is obtained.

The Examiner therefore concludes that one having ordinary skill in the art at the time the invention was made, would have found it obvious to modify the Tsumurai et al. desk fan so that a support pole elevates the fan at a desired position off the floor, as taught by Chang, for the purpose of converting a fan which rests adjacent to a surface to a fan which is elevated above the surface (see Office Action at p. 6).

The references are not properly combinable:

Applicants respectfully traverse the rejections and submit that no proper combination of the references of record would yield Applicants' unique invention, as recited in the claims of the present invention. To establish a prima facie case of obviousness, MPEP §2142 requires there must first be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

As stated previously, the Examiner admits that the Tsumurai et al. reference does not disclose or teach a support column extending upward from a base and connected to a housing, the rise height, or the dimensional relationships between the various components, including the relationship between the housing height and housing width, the relationship between the riser height and the housing length. Applicants agree that Tsumurai et al. do not disclose or

teach these features. Further, the Tsumurai et al. reference teaches the use of the fan on a desk wherein the desk supports the fan in a vertical position above the floor. As such, Applicants submit that the Tsumurai et al. reference does not require mounting such a fan on a pole and actually teaches away from mounting the desk fan on a support column. Mounting a fan on a surface of a desk (or other furniture) does not teach or suggest mounting the desk fan on a support column as recited in the claims of the present application, and in fact teaches away from such a combination. Because of the desk, a support column is not required. Accordingly, Applicants submit that for this reason the combination of Tsumurai et al. and Chang is improper since there is no motivation or suggestion to combine the references and also because the references themselves teach away from any such combination.

Further, the focus of the Tsumurai et al. reference is the oscillation mechanism that is disclosed as being integral to both the base and the housing. Tsumurai et al. require precise rotation of the main housing in relation to the base in order to change the function of the device between an air cleaner and an electric fan (see col. 7, l. 23-31 and claims). This feature of Tsumurai et al. further teaches away from using a column between the base and the housing because if Tsumurai et al. were modified to include a support column between the base and the main housing, the device would not work for its intended purpose. (see Tsumurai et al. a Fig. 7 and col. 3, l. 51 – col. 4, l. 51).

Moreover, Chang teaches a fan including a fan assembly having axial blades and a horizontal axis of rotation, a wire grill housing, and a circular air discharge pattern. Chang does not disclose or teach use of an elongate structure or vertical orientation of the housing, air impeller, air outlet, etc., nor does the Examiner alleged that it does. In fact, the Chang reference is precisely the type of prior art fan that the Applicant identifies in the background of the present application as having undesirable features and disadvantages. Therefore Chang actually teaches away from using a vertically elongate housing and air outlet. For this additional reason, Applicants submit that the combination of the Tsumurai et al. reference and the Chang reference is improper and that the disclosure of these references actually teach away from any combination.

Considering the claimed invention as a whole and comparing the claims to the teachings of the cited references as a whole, without impermissible hindsight, yields no reasonable expectation of success in combining the references. The desk fan of Tsumurai et al. would not work properly or be stable if it were mounted on the pedestal-type support for the air circulation device of Chang. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) is requested.

No prima facie case of obviousness:

Furthermore, Applicants also traverse the rejection of the claims under 35 U.S.C. § 103(a) because the Examiner has failed to establish a prima facie obviousness. For the Examiner to make a rejection based on obviousness, 35 U.S.C. § 103(a) and MPEP § 2141 require adherence to the following tenets of patent law: (A) the claimed invention must be considered as a whole; (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) reasonable expectation of success is the standard with which obviousness is determined.

To establish a prima facie obviousness, MPEP §2142 requires that the examiner bear the initial burden of factually supporting any prima facie conclusion of obviousness. There must first be some suggestion or motivation, either in the references themselves *or in the knowledge generally available to one of ordinary skill in the art* , to modify the reference or to combine reference teachings (emphasis added). Second, there must be a reasonable expectation of success. Finally, the prior art reference or references when combined must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

In the Final Office Action, the Examiner admits that the Tsumurai et al. and Chang references fail to disclose or teach numerous features recited in the claims (see, for example, Final Office Action pp. 5, 7, 9 and 11). This includes features recited in the independent claims as well as numerous dependent claims.

Applicants submit that the claims are patentably distinct from the cited art of record. During the telephone interview of June 6, 2005, the Applicants presented arguments regarding why the cited references failed to disclose or teach certain of the features of the present invention as recited in the claims.

Even assuming *arguendo* that it would be obvious to mount the desk fan disclosed by the Tsumurai et al. reference on a vertically adjusting support pole as disclosed by the Chang reference², this combination still does not make the claimed invention obvious because the claimed invention recited additional limitations that are not disclosed or taught by the cited references either alone or on combination. The claimed invention is not limited to simply placing an existing desk fan on a stem (support column), which at best is all that the combination of Tsumurai et al. and Chang teach.

For example, independent claim 1 recites a base for engaging a mounting surface and a support column having a first end connected to the base and extending upward from the base to a second end. An elongate housing is connected to the second end of the support column and includes a bottom, a top, and at least one outer wall extending between the bottom and the top. The elongate housing has a longitudinal length that extends upward from the bottom to the top and has a maximum cross-sectional width taken along a horizontal plane through the housing. The longitudinal length of the housing is at least 1.5 times the maximum cross-sectional width. A rise height is defined by a distance from the second end of the support column to the mounting surface. The rise height is at least 40% of the longitudinal length of the elongate housing. An air generator is disposed within the elongate housing and is in fluid communication with an air inlet and an air outlet.

Accordingly in considering the claimed invention as a whole, independent claim 1 recites features of an air generator positioned in an elongate housing mounted to a support column to provide an elevated flow of discharge air, wherein the rise height of the column and the length of the elongate housing are inter-related and the length of the housing is limited by the rise height of the support column. This overcomes the problem of the user not experiencing the air flow at an upper body portion and also solves some of the engineering and manufacturing problems associated with very tall tower fans (see patent Figures 3A-3B

² Applicants maintain that the Tsumurai et al. and Chang references are not properly combinable.

as compared to Figures 6A-8A and 14A-14B) (see also, patent Figures 17B-17C as compared to Figures 17A). The claimed features provide the advantage of an elevated flow of exhaust air with a limited length of the impeller assembly and housing. Claim 1 also limits the width of the elongate housing compared to the longitudinal height of the housing thus providing a space saving design.

Also, independent claim 31 recites a home comfort device including a base for stabilizing the device on a mounting surface and a housing having an elongated shape. A longitudinal length of the housing is at least 1.5 times a maximum cross-sectional width of the housing taken along a horizontal plane of the housing. A support column elevates the housing above the base. The device includes a non-operating and an operating configuration. The non-operating configuration is when the home comfort device is disassembled for shipment from a place of manufacturing to a place of sale. In the non-operating configuration the base is disconnected from the support column and the support column is disconnected from the housing. The operating configuration is when the home comfort device is assembled for operation. The base has a maximum cross-sectional width. In the operating configuration a first end of the support column is connected to the base and extends upward to a second end. A rise height is defined by a distance from the second end of the support column above a bottom of the base. The rise height is at least 40% of the longitudinal length of said housing. The housing is connected to the second end of the support column and the longitudinal length of the housing extends upward.

Accordingly, independent claim 31 recites features of a space saving air generation envelope for the elongate housing and also provides an elevated flow of discharge air. This overcomes the problem of axial fans which have large air generation envelopes (see patent Figures 2A-2C as compared to Figures 6A-6C). The rise height and the length of the housing are also inter-related to limit the length and width of the housing while also providing an elevated flow of exhaust air. Also, the problem of the user not experiencing the air flow at an upper body portion is addressed and the claimed invention also solves some of the engineering and manufacturing problems associated with very tall tower fans (see patent Figures 3A-3B as compared to Figures 6A-8A and 14A-14B) (see also, patent Figures 17B-17C as compared to Figures 17A). These claimed features provide the advantage of a space saving design and an elevated flow of exhaust air and also provide a device having a non-

operating and non-operating configuration for efficiencies in packaging and shipping (see patent Figures 4A-5C as compared to Figures 9A-9C).

Also, independent claim 53 recites a space saving home comfort device comprising a base for engaging a mounting surface. A support column having a first end connected to the base and extending upward from the base to a second end. A housing is connected to the second end of the support column. The housing comprises a bottom, a top, and at least one outer wall extending between the bottom and the top. The housing has a longitudinal length extending upward from the bottom to the top and has a maximum cross-sectional width taken along a horizontal plane through the housing. The longitudinal length is at least 1.5 times the maximum cross-sectional width. A rise height of at least 12 inches is defined by a distance from the second end of the support column to the mounting surface, wherein the rise height is at least 40% of the longitudinal length of the housing. An air generator disposed within the housing and in fluid communication with an air inlet and an air outlet. The air generator provides exhaust air having an overall area when measured at six feet from said housing that conforms to a width and a height of a user's torso. An overall length of the device is defined by a distance from a bottom of the base to the top of the housing, the overall length being at least 45 inches. The housing rotates about a first axis of rotation and the air generator has a second rotational axis. The first axis of rotation is substantially parallel to the second rotational axis.

Accordingly, independent claim 53 recites features of a space saving home comfort device having a space saving air generation envelope. Claim 53 also recites an elongate housing mounted to a support column and having an air generator to provide an elevated flow of discharge air. In addition, the rise height of the column and the length of the elongate housing are inter-related and the length of the housing is limited by the rise height of the support column and a minimum rise height is recited. Further, claim 53 recites a minimum overall length of the device. These features overcome the stated problems of prior art fans that have large air generation envelopes and the problem of the user not experiencing the air flow at an upper body portion. In addition, the claimed invention also solves some of the engineering and manufacturing problems associated with very tall tower fans by limiting the length of the housing and hence the air impeller. Claim 53 also recites that the axis of rotation of the housing and the axis of rotation of the air generator are parallel. These

features also address the problem of gyroscopic precession during the oscillation of housing and help increase the stability of home comfort device when compared to conventional fan assemblies. The claimed features provide the advantage of a space saving design, an elevated flow of exhaust air, and a shorter air impeller.

As stated above, it is respectfully submitted that the Tsumurai et al. and Chang references do not make obvious the claimed invention because these references fail to disclose or teach all of the features of the independent claims. In addition, the other references of record do not cure the deficiencies of the Tsumurai et al. and Chang references. If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious. See MPEP 2143.03. Accordingly, withdrawal of the rejections of the claims under 35 U.S.C. §103(a) is requested.

Not an obvious design choice:

Furthermore, in the Office Action the examiner relies on the conclusory statement that various features recited in the claims would have been an obvious matter of design choice to a person of ordinary skill in the art. Applicants traverse the rejections based on obvious design choice and request that the Examiner cite a reference (or references) in support of his position, as required by MPEP 2144.03. Applicants contend that the outstanding rejection of various claims as an obvious design choice falls within the “knowledge generally available to one of ordinary skill in the art” provision of MPEP §2142. Such an affidavit will provide an opportunity for Applicants to evaluate the basis of the current rejections in order to contradict the allegations or further explain the invention. Applicants traverse the obvious design choice rejection on this basis.

For all the above reasons, Applicants respectfully submit that independent claims 1, 31, and 53, and their dependent claims, are not obvious and are in condition for allowance. Accordingly, withdrawal of the claim rejections under 35 U.S.C. §103(a) is respectfully requested.

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Allowable Subject Matter

The Office Action stated that claims 20, 21, 37, 50, and 51 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 20 and 37 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims. It is respectfully submitted that these rewritten claims are in condition for allowance. Claims 21 and 36 depend from rewritten claims 20 and 37, respectively, and therefore are also in condition for allowance. In view of the arguments above with respect to claim 31, it is respectfully submitted that claims 50 and 51, which depend indirectly from independent 31, are in condition for allowance for the reasons provided for claim 31.

Conclusion

In view of the foregoing amendments and remarks, Applicants submit that the above-identified application is in condition for allowance. Early notification to this effect is respectfully requested. If the Examiner has any questions regarding this response, the Examiner is invited to contact the undersigned attorney at (215) 568-3100.

Date: June 7, 2005



Michael K. Jones
Registration No. 41,100

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439